

"Super-charging BricsCAD and AutoCAD with productivity boosting tools since 1999"

## **Polyline Tools**

Join

CP\_3DJ Join 3D Polylines

CP\_PLJOIN Automated Join - 2D polylines

Change 2d -> 3d -> 2d

**Vertex Management** 

CP\_DELVX Delete Vertex
CP\_INSVX Insert Vertex
CP\_DENSIFY Densify vertices

CP\_REM\_LINVERTS Weed (remove) collinear vertices from polyline

CP\_PL\_PLACE Place Points/Blocks along vertices

CP\_FIXCLOSED Add / Remove redundant closing vertex in polylines

CP\_DELSVP Delete single vertex polylines

CP MVEDIT Multiple Vertex Editor

CP\_NEWSTART Specify a new start point for closed polylines

CP\_TWEAKPOLY Tweak polyline vertex

**Part Editing** 

CP\_PARTEXTRACT Extract part of a polyline

CP\_PARTCOPY Copy(and move) part of a polyline

CP\_PARTOFFSET Offset part of a polyline
CP\_PARTSTRETCH Stretch part of a polyline
CP\_PARTMIRROR Mirror part of a polyline
CP\_PARTROTATE Rotate part of a polyline
CP\_PARTRESHAPE Reshape part of a polyline

**Inquiry & Statistics** 

CP\_PL\_STAT Compute detailed polyline statistics

CP\_LAYERAREA Compute summed polyline areas from selected layers

CP\_LENGTH Compute lengths

CP\_CALCAREA Compute summed areas of closed polylines
CP\_BULGE Display info. about polyline bulge (arc segments)

CP\_FINDHND Search entities via handles

#### More editing

CP\_XV Express Pedit
CP\_CP\_MPEDIT Multiple Pedit
CP\_CHW Change Widths

CP\_XP\_WPL Explode Polylines with width

CP\_SEGLENSET Specify segment lengths in polylines
CP\_SEGDEL Delete a single segment from polyline

Flip

CP\_FLIP Flip (Reverse) direction

CP\_PLARCMIRROR Flip (mirror) arc segments of polylines

**Fillet** 

CP\_FILLETPOLY Enhanced fillet command CP\_MFILLET Fillet multiple polylines

**Others** 

CP\_CP\_INOUTOFFSET Offset closed polylines INwards/OUTwards

CP\_XPSPL Explode Splined

CP\_POLYGETZ Acquire Neighboring polyline elevations

CP\_FLOW\_LT Control polyline linetypes

CP\_ZPOLY Zoom to Polyline

CP\_FIXUCS Fix line/polylines with different UCS

CP\_LINPOLY Draw linear polylines from arced polylines

### Conversion

### Line/Polyline/Arc/Spline

CP\_PLARC2PL Convert Arc Polylines to linear segment polyline CP\_PLINE2ARC Convert linear polylines to arcs/arced polylines

CP\_LINE2PL Convert lines and arcs to polylines
CP\_SPL2PL Convert Splines to polylines

CP\_PL2SPL Convert splines to polylines

CP\_PL2SPL Convert polylines to SPLINE

CP\_UNITCONV Units change CP\_LINE2XLINE Line 2 XLINE

### Polyline/3DFace/Mesh

CP\_PL23DFACE Convert polylines to 3dface
CP\_PL2PFACE Convert polylines to PFACE
CP\_3DF2PL 3DFaces to polylines
CP\_3DF2PFACE 3DFaces to polyface mesh
CP\_PFACE2PL Polyface mesh to polylines

### More conversion

CP\_BLKSHP2P Convert Blocks/Shapes/Text/Circle to Points
CP\_P2BLKSHP Convert Points/Text/Circles to Blocks/Shapes

CP\_OLEN2PNT Convert 0 Lengths to POINTs

CP\_ATT2XD Attributes to Xdata

### **Polyline Types**

CP\_CH\_H2L Heavy-Weight to Light-Weight
CP\_CH\_L2H Light-Weight to Heavy-Weight

CP\_SCALE\_Z Scale Z values

CP\_BL2BE Change Properties ByLayer-to-ByEntity
CP\_FLATTEN Flatten - Convert to 0.0 elevation

## **Export**

CP\_IMPEX Import/Export points and lines

CP\_MULTEXPORT Multiple drawing export in various formats
CP\_3DF2DM Export 3dface objects into SMS 2DM file format

CP IMPORT2DM Import 2DM files as 3dface objects

CP CSVEXPORT Export CSV file

#### **Draw**

#### Geometry

CP\_CREATETAPER Tapered lines

CP\_SLOT Slot
CP\_HELIX Helix
CP\_PARABOLA Parabola
CP\_INVOLUTE Involute
CP\_TUBE Tube

CP\_TRUNCCONE Truncated Cone
CP\_PERP Perpendicular lines

CP\_DBOX Draw Rectangle with diagonals CP\_XLINES Projected(construction) lines

CP\_TANCURVE Tangents to Curves
CP\_LINEEQ Equation of a Line
CP\_CGRID Construction Grid

CP\_RECTLB Draw Rectangle with dimensions

#### **CAD Objects**

CP\_EASY3DPOINT Easy 3dpoint
CP\_EASY3DPOLY Easy 3dpolyline
CP\_EASY3DFACE Easy 3dface

## **Symbology**

CP\_ROUGHEN Roughen a Line

CP\_PATTERNPLACER Place a pattern at regular spacing

### **Rule-based**

CP\_DRAWPOLYINCDEC Draw 3d polylines with auto. Elev increment/decrement
CP\_BOXSCREEN Draw a rectangle box at the current screen extents
CP\_BOUNDENT Draw bounding box around selected object(s)
CP\_SORTEDPOLY Draw a polyline by joining points in sorted order

CP\_SHOWPLARCS Draw arc-ends to arc-center connections in arcs & poly-arcs

CP\_POLYAREACREATE Draw closed polylines to an exact area

CP\_HOLETABLE Draw Hole table

CP\_POLYAREACREATE Draw closed polylines to an exact area

## **Build**

#### Offset

CP\_MOFFSETR Multiple Offset - Relative
CP\_MOFFSETA Multiple Offset - Absolute
CP\_CP\_OFFSET Offset and delete original
CP\_3DOFFSET Offset 3d polylines

CP\_SEGOFFSET Offset single segment from polyline
CP\_MVOFFSET Multiple Variable polyline segment offset

CP\_CREATECENT Create centroid marks inside closed polygons

CP\_MEASUREMANY Measure multiple objects
CP\_EXTRUDER Easy Solids Extruder

CP\_JNE Join nearest ends of lines, polylines

CP\_CPROT Copy and then Rotate
CP\_MVROT Move and then Rotate

CP\_DATAMAN Data Manager

## **Annotation**

CP IDXYZ Label points

CP\_VXLABEL Label polyline vertices
CP\_SEGLABEL Label polyline segments
CP\_ANGLABEL Label polyline Angles

CP\_ANNOTATEENDS Annotate ends of lines/polylines with symbols
CP\_ANNOTPOINTS Annotate points, based on layer names
CP\_LENTEXT Create/update length annotation
CP\_HNDLABEL Display object handles as text labels

CP\_MARKLEVELS Mark levels above-or-below a selected datum

## **Blocks**

#### **Block-related**

CP\_MOD\_SHBL Globally Modify Block Properties

CP\_BLKMAN Block Names Editor
CP\_REPBLK Replace Block

CP\_XP\_ATT (BURST) Explode Block- Retain attributes as Text
CP\_COMPAREBLKATTS Compare Block attributes and create report
CP\_CONNECTBLOCKS Connect blocks based on attribute values

CP\_MREDEFINE Multiple Redefine Blocks-Lyr/Clr
CP\_EXPLODENESTED Explode only nested blocks
CP\_EXPLODE2LAYER Explode blocks to a specified layer

CP\_DRAWSEGBLOCKS Place a block along each segment of the polyline CP\_MBLKTRIM Trim lines/polylines along intersecting blocks

CP\_BLOCKINS Express Block Insert

CP\_REPEATBLK Repeat Last Block Insert

CP\_BLKSLIDE Slide (move) block relative to its rotation angle

CP\_SCLEDIT Interactive XY scale editor

#### **Attribute-related**

CP\_CP\_ATTEDIT Global Attribute Editor

CP\_CP\_EASYATT Multiple-Choice attribute editor
CP\_CP\_EASYATT\_SETUP Multiple-Choice attribute editor Setup

CP\_CP\_EASYATTCLASS Change block layers/color based on attribute values

CP\_CP\_ATTEXT Extract Block attributes to file

CP\_PROP2ATT Transfer AutoCAD properties to Blocks Attributes

CP\_TAGEXT Export Block Attribute Tags to ASCII file

CP\_TAGREN Rename block attribute tags, prompts and defaults
CP\_TAGDEL Delete block attribute tags from block definition

CP\_ATTMOVE Move attribute CP\_ATTROTATE Rotate attribute

CP\_ATTUPRIGHT Make attribute readable

CP\_ATTXFER Transfer Attributes between blocks
CP\_TXT2ATT Transfer Text strings to Block attributes

CP\_ZOOMTXT Search and replace text/attributes

CP\_BLKEDIT Edit blocks graphics and attribute properties independently

CP\_DYNATTPLACE Place Block - position attributes interactively

CP\_SRCHBLK4TXT Search Blocks for text strings

#### **Text**

#### Creation

CP\_TC Draw Quick Text (running numbers)

CP\_CURVETEXT Create text along a curve
CP\_EASYTEXT Create text aligned to a curve
CP\_DATESTAMP Create Date/Drawing Stamp

CP\_MT Draw Multiple Text

## **Editing**

CP MODTXT Globally modify TEXT/MTEXT

CP TXTFILTER Text Filter

CP\_TXTROUND Round Off Numeric text
CP\_ENCLOSE Enclose Text in Box

CP\_CONS\_TXT Consolidate Text into MText

CP\_SPLITTEXT Split long text strings into individual strings

CP\_UNCLUTTER Unclutter text objects

CP\_TXTSLIDE Slide (move) text relative to its rotation angle

CP\_TXT2FILE Write Text to File

CP\_TXTEDIT Global Multiple Text Editor

CP\_TXT2MTXT Consolidate Text into MText (quick version)

#### Conversion

CP\_TXT2ATTDEF Convert text strings to attribute definitions
CP\_ATTDEF2TXT Convert attribute definitions to text objects

CP\_CHCASE Change Case

CP\_CHCASEQUICK Change Case – shortened quick version

### **Display**

CP\_ALIGNTEXT Align Text Objects

CP\_ALIGNTEXT2LINE Align Text Objects to a line

CP\_TORIENT Text Orient: Make Text,MText readable CP\_TXTSPACING Adjust the spacing between text objects

CP\_TXTCHANGE Exchange one text with another

CP\_UND\_LINE Underline Text

CP\_TXTEVAL Apply arithmetic/statistical operations on text objects

CP\_DWGFONTS List Drawing Fonts
CP\_TEXTMASK Create TEXTMASK

CP\_TCOUNT Count occurence of text objects

## **Extended Entity Data**

CP REMXD Remove Xdata

CP\_XD\_SEARCH Search and replace extended entity data

CP\_SHOWXD Display extended entity data from picked object

CP XD EXTRACT Extract extended entity data to ASCII files

CP OD XD LABEL Create text labels from Object data / extended entity data

CP\_NODATA Check for no Xdata / Object Data

CP EASYEED Edit XDATA in a dialog box

## **BOM/BOQ Tools**

#### Generic

CP\_BOM BOM/BOQ Generator

### Panels, Sizes & Area computation

CP\_TILEPLACE Place tiles / XY panels (for space planning)

CP\_TILEOFFSET Offset tiles / XY panels
CP\_TILECOUNT Count tiles / XY panels
CP\_TILEEDIT Edit tiles / XY panels
CP\_FLEXITILE Place flexi-tiles

### Doors, windows & fixtures schedules

CP\_BUILDWALLS

Build Walls from plan footprint

CP\_SEGLENHGTSET

Set Height/Length of wall segments

CP\_PLACEFIXTURES

Place openings/fixtures on walls/floors

 $\label{lem:cp_compute} \mbox{CP\_COMPUTEWALLAREAS} \mbox{ Compute Wall/Openings areas}$ 

### **Linear Quantities**

CP\_LINEQTY Compute linear quantities

## **Parts Management**

CP\_PARTASSIGN Assign part names
CP\_PARTUNASSIGN Un-Assign part names
CP\_PARTLABEL Label part names
CP\_PARTCOUNT Count part names

## Modeler

CP\_CONVERTTO3DFORMS Convert 2d objects to 3d forms

## Miscellaneous

## File Management

CP\_FILEMAN File Manager

CP\_DWGBROWSER DWG browser, with thumbnail previews

CP\_BINDXREF Detaches all un-referenced XREFs and binds all others into current DWG

CP\_BATCHPROCESS Batch process multiple drawings with scripts

CP\_MULTINS Multiple DWG Inserts
CP\_MXREF Multiple drawings XREF

CP\_READEXIF Display EXIF data from images & other files (photo-forensics)

CP INIEDITOR Edit CADPower INI files

**Export** 

CP\_LYRS2DWG Layers to DWG

CP\_DWGSPLIT Split a drawing into smaller parts

CP\_FILEESORT Sort ASCII files

#### **CAD Procedures**

CP\_MATCH Match Properties
CP\_OBJALIGN Align Objects

CP XYZSCL Scale objects (unequally) in X, Y and Z directions

CP\_MEANPOINT Create a mean (averaged) point from a cluster of points

CP\_FLIPZ Flip (reverse) elevations(Z) from selected objects

CP ROUNDOFF Round Off Values from points/lines

CP\_HATCHBOUND Re-Create Hatch boundaries from HATCH object

CP XTRACT Extract from XREF

CP XP RETDAT Explode objects - Retain Object Table and extended entity data

CP\_HATCHAREA Report on areas covered by HATCH objects
CP\_FLIPARCS Flip ECS of arcs with negative normals

CP\_CHOP Object Chopper

CP\_AUTODIM Automatic Dimensioning
CP\_FACENORMAL Control 3dface Face Normals
CP\_CONTBREAK Break(Split) objects along a polyline

CP\_ZOOMENT Zoom to extent of selected object(s) (with 5% margin)

CP DELETELAYOUTS Delete paper-space layouts

CP\_NULLTEXT Delete Null TEXT

CP\_PURGEALL Purge All Unused Symbols
CP\_SCALECLEAN Remove all unreferenced scales

CP\_VISIBLE Change object visibility

CP\_REPURL Search / Replace attached URL CP\_DIMPREC Change Dimension Precision

CP\_POLYCLIP Clip an image along a boundary polygon
CP\_IMAGETRIM Trim an image along a boundary line
CP\_SHAPEMANAGER Analyze and manage geometric shapes
CP\_LINEPLANEINT Determine the intersection of line and plane

CP\_DIVPOLY Divide a 3/4 sided polygon
CP\_JOINCOLLINEAR Join collinear lines & polylines
CP\_DWGAUDIT Perform drawing audit and clean-up

CP\_WIPEOUT Create a WIPEOUT buffer around closed polygons

CP\_HATCHINSVX Insert vertex in hatch boundary
CP\_HATCHDELVX Delete vertex from hatch boundary

CP\_GRIPHATCH Display grips in hatches

CP\_MOVEBAK Move the backup .BAK files to a specified folder

CP\_HATCHORIGIN Change hatch origin

## Viewports

CP\_VPEXTRACT Extract clipping boundary
CP\_VPBNDRYUPDATE Update clipping boundary

CP\_LOCKVPCURLAYOUT Lock All Viewports in current layout CP\_UNLOCKVPCURLAYOUT UnLock All Viewports in current layout

CP\_LOCKVPORTS Lock Viewports

CPVPMAX (also as VPMAX) Maximize a paper-space viewport

CP\_VPMAXRESTORE Restore original view setup after running VPMAX

### Selection

CP\_PLFILTER Polylines based on properties

CP\_FINDENCLOSED Find points enclosed within 3dface space

CP\_3DFFILTER 3DFaces based on properties
CP\_ESELECT Enhanced Entity Selector

CP\_MAKESEL Build Selection Set

CP\_FINDZRNG Find objects in selected Z range

CP\_SL Select Current Layer
CP\_SS Select Current Style

CP\_LASTSEL Put last CADPower selection in 'previous' sel.set

## Inquiry

CP\_SURFAREA Compute Surface Area of 3DFACEs
CP\_ANGLE Display angle between two lines
CP\_CGRAV Compute Center of Gravity
CP\_DWG\_STAT Display Drawing Statistics

CP\_PERIMTR Compute running distance/perimeter

CP\_VISIT Object Selection Browser
CP\_Q Quick elevation Info
CP\_DXY Enhanced DIST command

### Layer

CP\_LAYERMAN Layer Names Editor
CP\_ISOD Isolate layer(s)

CP\_RESTORE Restore Isolated layer(s) CP\_SL\_1 Save Layer State - 1 CP\_SL\_2 Save Layer State - 2 CP\_SL\_3 Save Layer State - 3 CP\_RL\_1 Restore Layer State - 1 CP\_RL\_2 Restore Layer State - 2 CP\_RL\_3 Restore Layer State - 3 CP\_CCL Change to current layer CP\_CPCL Copy to current layer

CP\_COPYLYR Copy layer contents to another layer

## **More Options**

CP CHECKUPDATES Check for CADPower updates

CP\_DEBUGINFO Display debug info about the computer and licensing CP\_SHOWPATHS Show & browse important system & DWG paths

CP\_CMDLIST List GeoTools/CADPower commands
CP\_CMDSEARCH Search GeoTools/CADPower commands

CP\_CCMDHELP Display Specific Command Help CP\_LASTCMDHELP Display help for last command

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CP\_DIMTXTEXTRACT Extract text from dimensions